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Value chain efficiency analysis of HBI and NH3 to transport green iron for EAF charging

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Green steel requires massive investments into new decarbonized production technology and green energy supply, yet renewables are cheapest to produce in remote locations far from established steel production sites. Is it thus more sensible to relocate the energy intensive iron production step near renewable energy, or should investments aim at bringing green energy efficiently to the existing sites, such as with green ammonia (NH3)? A full value chain analysis is conducted to answer this question, accounting for process losses, yield losses, and other impactful details, which may not be obvious to the naked eye in an oversimplified first assessment.

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